

INTERNATIONAL SEARCH REPORT

In. National Application No

PCT/EP 98/06952

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ✓	WO 91 10675 A (STICHTING RES FONDS PATHOLOGIE) 25 July 1991 (1991-07-25)	1-4, 10-12, 14,16, 17,19
Y	page 4, line 8 - page 5, line 17 page 8, line 14 - page 9, line 16 page 12, line 13 - page 13, line 7 page 14 - page 20, line 28 ---	8,9
Y ✓	US 5 538 848 A (LIVAK KENNETH J ET AL) 23 July 1996 (1996-07-23) the whole document ---	8
Y ✓	EP 0 070 685 A (STANDARD OIL CO) 26 January 1983 (1983-01-26) abstract; figure 2 ---	9 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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Date of the actual completion of the international search

Date of mailing of the international search report

12 July 1999

27/07/1999

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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X ✓	WO 96 29431 A (SEQUENOM INC) 26 September 1996 (1996-09-26) page 41, line 15 - page 44, line 22; figures 5,21; example 5 page 15, line 18 - page 16, line 4 ---	15
A ✓	EP 0 229 701 A (CETUS CORP) 22 July 1987 (1987-07-22) example 2 ---	5
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Information on patent family members

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PCT

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INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)



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(22) Internationales Anmeldedatum: 3. November 1998 (03.11.98)			
(30) Prioritätsdaten:			Veröffentlicht <i>Mit internationalem Recherchenbericht. Vor Ablauf der für Änderungen der Ansprüche zugelassenen Frist. Veröffentlichung wird wiederholt falls Änderungen eintreffen.</i>
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(71) Anmelder (für alle Bestimmungsstaaten ausser US): ROCHE DIAGNOSTICS GMBH [DE/DE], D-68298 Mannheim (DE).			(88) Veröffentlichungsdatum des internationalen Recherchenberichts: 10. September 1999 (10.09.99)
(72) Erfinder; und			
(75) Erfinder/Anmelder (nur für US): KESSLER, Christoph [DE/DE]; Schlossbergweg 11, D-82057 Icking (DE). HABERHAUSEN, Gerd [DE/DE]; Jochbergweg 2, D-82393 Iffeldorf (DE). BARTL, Knut [DE/DE]; Am Westend 6, D-82407 Wielenbach (DE). ORUM, Henrik [DK/DK]; Vildrosevej 3, DK-3500 Værløse (DK).			
(74) Gemeinsamer Vertreter: ROCHE DIAGNOSTICS GMBH; Patentabteilung, D-68298 Mannheim (DE).			

(54) Title: SPECIFIC AND SENSITIVE METHOD FOR DETECTING NUCLEIC ACIDS

(54) Bezeichnung: SPEZIFISCHES UND EMPFINDLICHES NUKLEINSÄURENACHWEISVERFAHREN

(57) Abstract

The invention relates to a method for detecting a nucleic acid comprising the production of a plurality of amplifications of a section of said nucleic acid with the assistance of two primers of which one can bond on a bonding sequence A of the nucleic acid and the other can bond on a bonding sequence C' which is complimentary to a sequence C. Sequence C does not overlap A and is situated in a 3' direction from A. The inventive method also includes bringing the amplifications in contact with a probe having a bonding sequence D which can bond on a sequence B, said sequence B being situated between sequences A and C, or the complement thereof. In addition, the invention relates to the detection of the construction of a hybrid out of the amplification and the probe, whereby the sequence situated between the bonding sequences A and C contains no nucleotides, said nucleotides not being linked to the bonding sequence D of the probe or to complement D' thereof.

(57) Zusammenfassung

Verfahren zum Nachweis einer Nukleinsäure umfassend die Herstellung einer Vielzahl von Amplifikaten eines Teilstücks dieser Nukleinsäure mit Hilfe zweier Primer, von denen einer an eine Bindesequenz A der Nukleinsäure binden kann und von denen der andere an eine Bindesequenz C', die zu einer mit A nicht überlappenden, in 3'-Richtung von A gelegenen Sequenz C komplementär ist, binden kann, Inkontaktbringen der Amplifikate mit einer Sonde mit einer Bindesequenz D, welche an eine zwischen den Sequenzen A und C gelegene Sequenz B oder das Komplement davon binden kann, und Nachweis der Bildung eines Hybrides aus dem Amplifikat und der Sonde, wobei die zwischen den Bindesequenzen A und C gelegene Sequenz keine Nukleotide enthält, die nicht der Bindesequenz D der Sonde oder ihrem Komplement D' zugehören.